

REMARKS

Claims 1-20 are pending in the application. Claims 1, 2, 4, 6, 8-13, 15-18 and 20 were rejected under 35 U.S.C. §102(a) as being anticipated by Hasegawa et al. Claims 3, 5, 7, 14 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Heidorn et al. Claims 1-20 have been amended and claim 21 has been added, without new matter.

Reconsideration and reexamination of the application in view of the amendments and the following remarks is respectfully requested.

The present invention is directed to a music composing apparatus that automatically creates musical compositions to be played in synchronization with image data. The music composing apparatus calculates the number of bars of the musical composition that are needed for a particular section of the image data. A bar number-corresponding data device then acquires block structure data, passage structure data, and chord progression data needed to generate the melody for that particular section, based on the calculated number of bars needed for that section. A melody generating device composes a melody based on the acquired block structure data, passage structure data, chord progression data and melody generating data (e.g. number of notes, presence or absence of syncopation, and pitch dynamics). An accompaniment generating device also composes an accompaniment to the generated melody including one or more of an introduction, an interlude, or an ending based on the acquired block structure data, passage structure data, chord progression data and melody generating data and style data. Finally, an output device outputs the generated melody and accompaniment in synchronization with the image data.

Claims 1, 2, 4, 6, 8-13, 15-18 and 20 were rejected under 35 U.S.C. §102(a) as being anticipated by Hasegawa. Claims 1, 4, 11, 13, 15, 16, 18 and 20 have been amended to recite the generation of a melody, an accompaniment generating module or device for generating an accompaniment of the musical composition including at least one of intro, interlude, and ending, and an output module or device that outputs a combination of the generated melody and accompaniment. With regard to these claims, it is respectfully submitted that their rejection under 35 U.S.C. §102(a) as being anticipated by Hasegawa has been overcome.

Hasegawa completely fails to disclose the generation of an accompaniment of any type, and also fails to disclose an output device that outputs a combination of the generated melody and accompaniment. Hasegawa discloses an automatic music composing method and system for analyzing an input image and automatically composing music that matches the atmosphere of the input image and continues while the image is displayed, but contains no disclosure whatsoever regarding the generation of an accompaniment along with the music.

Because Hasegawa does not disclose all of the limitations of amended claims 1, 4, 11, 13, 15, 16, 18 and 20, it is respectfully submitted that the rejection of those claims under 35 U.S.C. §102(a) as being anticipated by Hasegawa has been overcome. In addition, because claims 2 and 8-10 depend from amended claim 1, claim 6 depends from amended claim 4, and claim 17 depends from amended claim 15, it is respectfully submitted that the rejection of claims 2, 6, 8-10 and 17 under 35 U.S.C. §102(a) as being anticipated by Hasegawa has also been overcome for the same reasons provided above with respect to claims 1, 4 and 15.

With regard to claim 12, its rejection under 35 U.S.C. §102(a) as being anticipated by Hasegawa is respectfully traversed. Claim 12 recites a bar number calculating device that calculates the number of bars of the musical composition that are needed for a particular time period, a bar number-corresponding data device that acquires data necessary to generate the musical composition (wherein the data corresponds to the number of units needed to generate the musical composition and each unit represents a fixed number of bars), a length adjusting device that deletes any unneeded data from the leading end of the acquired data to match the acquired data with the calculated number of needed bars, and a musical composition generating device that generates the musical composition based on the adjusted data.

Hasegawa contains no disclosure at all related to a device that acquires data necessary to generate the musical composition, wherein the data corresponds to the number of units needed to generate the musical composition and each unit represents a fixed number of bars. Hasegawa also fails to disclose a device that deletes any unneeded data from the leading end of the acquired data to match the acquired data with the calculated number of needed bars.

Because Hasegawa does not disclose all of the limitations of claim 12, the rejection of claim 12 under 35 U.S.C. §102(a) as being anticipated by Hasegawa is respectfully traversed.

Claims 3, 5, 7, 14 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Heidorn. Claims 3, 5, 7 and 14 have been amended (via the independent claims from which they depend) to recite the generation of a melody, an accompaniment generating module or device for generating an accompaniment of the musical composition including at least one of intro, interlude, and ending, and an output module or device that outputs a combination of the generated melody and accompaniment. Claims 3, 5, 7 and 14 have been further amended (via the independent claims from which they depend) to recite a bar number-corresponding data device that acquires data necessary to generate the melody, wherein the data corresponds to the number of bars obtained by subtracting a number of bars of at least one of intro bar, interlude bar, and ending from the calculated number of bars. With regard to these claims, it is respectfully submitted that their rejection under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Heidorn et al has been overcome.

Hasegawa does not disclose, teach or suggest the generation of an accompaniment of any type, or an output module or device that outputs a combination of the generated melody and accompaniment. Hasegawa also contains no disclosure at all related to a device that acquires data necessary to generate the melody, wherein the data corresponds to the number of bars obtained by subtracting a number of bars of at least one of intro bar, interlude bar, and ending from a calculated number of bars.

Heidorn fails to disclose, teach or suggest generating a melody based on acquired bar number-corresponding data corresponding to a number of bars obtained by subtracting a number of bars of at least one of intro bar, interlude bar, and ending from a calculated number of bars, or outputting a combination of the generated melody and a generated accompaniment. Heidorn discloses the reproduction of known accompaniment data in synchronization with a known musical score sung by a vocal soloist, but the accompaniment is predetermined and fixed (see FIG. 11 and col. 5 lines 3-9), and is not generated (composed) based on block structure data, passage structure

data, chord progression data and style data as in the present invention. In addition, Heidorn only outputs this fixed accompaniment, and does not output a combination of the generated melody and generated accompaniment.

Thus, neither reference discloses, teaches or suggests the invention recited in claims 3, 5, 7 or 14 singly. Furthermore, there would have been no motivation or suggestion for one skilled in the art to combine the two references to produce the present invention. Hasegawa teaches the automatic composition of background music synchronized with image data. Heidorn deals with vocal input, not image data, and teaches the reproduction of fixed, predetermined accompaniment data, not generated (composed) accompaniment data. There is no suggestion in either Hasegawa or Heidorn to compose accompaniment data. Because neither Hasegawa nor Heidorn disclose, teach or suggest generating (composing) accompaniment data or outputting a combination of the melody and accompaniment, it is submitted that the rejection of claims claims 3, 5, 7 and 14 under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Heidorn has been overcome.

With regard to claim 19, its rejection under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Heidorn is respectfully traversed. Claim 19 recites a bar number calculating module that calculates the number of bars of the musical composition that are needed for a particular time period, a bar number-corresponding data acquiring module that acquires data necessary to generate the musical composition (wherein the data corresponds to the number of units needed to generate the musical composition and each unit represents a fixed number of bars), a bar number-corresponding data length adjusting module that deletes any unneeded data from the leading end of the acquired data to match the acquired data with the calculated number of needed bars, and a musical composition generating module that generates the musical composition based on the adjusted data.

Hasegawa contains no disclosure at all related to a device that acquires data necessary to generate the musical composition, wherein the data corresponds to the number of units needed to generate the musical composition and each unit represents a fixed number of bars. Hasegawa also

fails to disclose a device that deletes any unneeded data from the leading end of the acquired data to match the acquired data with the calculated number of needed bars.

Heidorn also fails to disclose a bar number-corresponding data acquiring module that acquires data necessary to generate the musical composition, wherein the data corresponds to the number of units needed to generate the musical composition and each unit represents a fixed number of bars. Heidorn also fails to disclose a length adjusting module that deletes any unneeded data from the leading end of the acquired data to match the acquired data with the calculated number of needed bars.

Thus, neither reference discloses, teaches or suggests the invention recited in claim 19 singly. Furthermore, there would have been no motivation or suggestion for one skilled in the art to combine the two references to produce the present invention, because both Hasegawa and Heidorn are completely silent and do not contain even the slightest reference to a bar number-corresponding data acquiring module that acquires data necessary to generate the musical composition, wherein the data corresponds to the number of units needed to generate the musical composition and each unit represents a fixed number of bars, and a length adjusting module that deletes any unneeded data from the leading end of the acquired data to match the acquired data with the calculated number of needed bars. Because neither Hasegawa nor Heidorn disclose, teach or suggest all of the limitations of claim 19, it is submitted that the rejection of claims claim 19 under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Heidorn has been traversed.

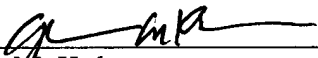
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. According, the Examiner is respectfully requested to pass this application to issue.

If, for any reason, the Examiner finds the application other than in condition for allowance, Applicant requests that the Examiner contact the undersigned attorney at the Los Angeles telephone number (213) 892-5752 to discuss any steps necessary to place the application in condition for allowance.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 393032031700.

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